

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				Application Number	
				Filing Date	
				First Named Inventor	<b>Bing Ji, et al.</b>
				Art Unit	
				Examiner Name	
Sheet	1	of	2	Attorney Docket Number	<b>06299P2 USA</b>

<b>U. S. PATENT DOCUMENTS</b>					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> ( <i>if known</i> )			
	US-	2001/0011526 A1	8/9/2001	K. Doering, et al.	
	US-	2001/0055852 A1	12/27/2001	T. S. Moise, et al.	
	US-	5,288,662	2/24/1994	A. Lagendijk, et al.	
	US-	5,298,075	3/29/1994	A. Lagendijk, et al.	
	US-	5,356,478	10/18/1994	C. Chen, et al.	
	US-	5,454,903	10/3/1995	F. C. Redeker, et al.	
	US-	5,756,400	5/26/1998	Y. Ye, et al.	
	US-	5,879,459	3/9/1999	P. N. Gadgil, et al.	
	US-	5,972,722	10/26/1999	M. R. Visokay, et al.	
	US-	6,174,377	1/16/2001	K. Doering, et al.	
	US-	6,211,035	4/3/2001	T. S. Moise, et al.	
	US-	6,238,582	5/29/2001	K. E. Williams, et al.	
	US-	6,387,185	5/14/2002	K. Doering, et al.	
	US-				
	US-				
	US-				

<b>FOREIGN PATENT DOCUMENTS</b>						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> ( <i>if known</i> )				
		EP 1 001 459 A2	5/17/2000	Europe		✓
		WO 00/40772	7/13/2000	World		✓
		WO 00/79019 A1	12/28/2000	World		✓
		WO 02/43114 A2	5/30/2002	World		✓
		WO 02/43115 A2	5/30/2002	World		✓

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformation and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO:

**Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				<b>Complete if Known</b>	
				Application Number	
				Filing Date	
				First Named Inventor	<b>Dingjun Wu, et al.</b>
				Art Unit	
				Examiner Name	
Sheet	<b>2</b>	of	<b>2</b>	Attorney Docket Number	<b>06469 USA</b>

NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T <sup>2</sup>
		K. K. Shih, "Hafnium Dioxide Etch-Stop Layer for Phase-Shifting Masks," J. Vac. Sci. Technol. B 11(6), pp. 2130-2131(1993).			✓
		J. A. Britten, "Etch-Stop Characteristics of Sc <sub>2</sub> O <sub>3</sub> and HfO <sub>2</sub> Films for...," J. Vac Sci. Technol. A 14(5), pp. 2973-2975 (1996).			✓
		J. Hong, "Comparison of Cl <sub>2</sub> and F <sub>2</sub> Based Chemistries for the...," J. Vac. Sci. Technol. A 17(4), pp. 1326-1330 (1999).			✓
		J. W. Lee, "Electron Cyclotron Resonance Plasma Etching of Oxides...," J. Vac Sci. Technol. A 16(3), pp. 1944-1948.			✓
		W. G. M. van den Hoek, "The Etch Mechanism for Al <sub>2</sub> O <sub>3</sub> in Fluorine and Chlorine Based RF Dry Etch Plasma," Mat. Res. Soc. Symp. Proc., 68, pp. 71-78 (1986).			✓
		J. E. Spencer, et al., "Emission Spectroscopy of CC14 and BC13 Plasma During Aluminum Etching," Proceedings—Electrochemical Society, 82-7, pp. 103-107 (1982).			✓
		T. Kannainen, et al, "Growth of Dielectric HfO <sub>2</sub> /Ta <sub>2</sub> O <sub>5</sub> Thin Film Nanolaminate Capacitors by Atomic Layer Epitaxy," Proceedings—Electrochemical Society, 97-31, pp. 36-46 (1998).			✓
		H. B. Bell, et al., "Reactive Ion Etching of Aluminum/Silicon in BBr <sub>3</sub> /Cl <sub>2</sub> and BCl <sub>3</sub> /Cl <sub>2</sub> Mixtures," Journal of Electrochemical Society, 135(5), pp. 1184-91 (1988).			✓
		Y. S. Lee, et al., "Mass Spectrometric Characterization of BCl <sub>3</sub> /SF <sub>6</sub> Plasmas," Journal of Applied Physics, 88(8), pp. 4507-4509 (1980).			✓
		N. Heiman, et al., "High Rate Reactive Ion Etching of Al <sub>2</sub> O <sub>3</sub> and Si," J. Vac. Sci. Technol., 17(3), pp. 731-734 (1980).			✓
		K. Shibata, et al., "Manufacturing Method and its Equipment of Thin Film Magnetic Head," Japanese Patent Application JP2000251221A (2000).			✓
		J. Chen, et al., "Formation of Polycrystalline Silicon Germanium/HfO <sub>2</sub> Gate Stack Structure Using Inductively Coupled Plasma Etching," J. Vac. Sci. Technol. A 21(4), pp. 1210-1217 (2003).			✓

Examiner Signature	Date Considered
--------------------	-----------------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commission for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.